| Notice of Allowability   | Application No.                                  | Applicant(s)                            |       |
|--|--|---|-------|
|  | 10/717,106                                       | HYLAND ET AL.                           |       |
|  | Examiner   | Art Unit                                | •     |
|  | C. Melissa Koslow                                | 1755                                    |       |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. |  |   |       |
| 1. This communication is responsive to the examiner's amendment of 6/22/05.  |  |   |       |
| 2. The allowed claim(s) is/are 12-14.  |  |   |       |
| 3. The drawings filed on are accepted by the Examiner.   |  |   |       |
| <ul> <li>4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul>                 |  |   |       |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.   |  |   |       |
| 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.   |  |   |       |
| 6. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  |  |   |       |
| (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached   |  |   |       |
| 1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date   |  |   |       |
| (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date   |  |   |       |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).  |  |   |       |
| 7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.  |  |   |       |
| Attachment(s)  | ·  |   |       |
| 1. Notice of References Cited (PTO-892)  | 5. Notice of Informal Pa                         | • | -152) |
| 2. Notice of Draftperson's Patent Drawing Review (PTO-948)   | 6.  ☐ Interview Summary (<br>Paper No./Mail Date |   | ·     |
| 3. Information Disclosure Statements (PTO-1449 or PTO/SB/0: Paper No./Mail Date  | 8), 7. 🛭 Examiner's Amendm                       | nent/Comment                            |       |
| 4. Examiner's Comment Regarding Requirement for Deposit  | 8. 🛛 Examiner's Stateme                          | nt of Reasons for Allov                 | vance |
| of Biological Material   | 9. Other   | •                                       |       |
|  |  |   |       |

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Opalko on 21 June 2005.

The application has been amended as follows:

Cancel claim 15

Rewrite claims 12-14 as follows:

12. (Currently amended): A photoluminescent aluminate comprising

SrAl<sub>2</sub>O<sub>4</sub>:Eu,Dy,Gd,Sc wherein the following materials and quantities are combined and reacted to form the aluminate:

SrCO<sub>3</sub> (1.0 mole)

 $Al_2O_3$  (1.0 mole)

 $Eu_2O_3$  (0.005 mole)

 $Dy_2O_3$  (0.01 mole)

 $Gd_2O_3$  (0.005 mole)

 $Sc_2O_3$  (0.005 mole)

 $B_2O_3$  (0.2 mole).

13. (currently amended): A photoluminescent aluminate as recited in claim 12, wherein said  $SrCO_3$  and  $Al_2O_3$  are combined and reacted to form  $SrAl_2O_3 + O_3$   $CO_2$ .

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14. (currently amended): A photoluminescent aluminate as recited in claim 13, where said SrAl<sub>2</sub>O<sub>4</sub> is heat treated prior to being combined with the remaining material synthesized at approximately 1300°eC – 1450°C.

These amendments are being made because the amendment filed 16 June 2005 was noncompliant in that the claims did not include the amendments previously added.

The following is an examiner's statement of reasons for allowance:

It is noted that the words "synthesized" and "reacted" are used interchangeable in the art and thus have the same meaning.

There is no motivation in the aluminate phosphor art for aluminate phosphors to contain more than three codopants in light of the fact one of ordinary skill in the art cannot predict the effect of the fourth codopant on the luminescent properties of the phosphors. This is because the amount and composition of the codopants all determine the emission and excitation wavelengths, afterglow and efficiency of the phosphor and each dopant affects each other with respect to these properties and such effects cannot be predicted.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk June 22, 2005 C. Melissa Koslow Primary Examiner Tech. Center 1700